

Evaluation of burnout among Board-Certified Psychiatric Pharmacists in the United States

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Abstract

Introduction: Burnout is an occupational phenomenon resulting from chronic workplace stress that is unsuccessfully managed. Data related to burnout among clinical pharmacists are limited. This study aimed to measure burnout among Board-Certified Psychiatric Pharmacists (BCPPs) and evaluate the correlation between practice characteristics and demographics.

Methods: This was a cross-sectional survey study of BCPPs. The survey included demographic, practice-related, and burnout questions. The primary outcome was burnout scores using the Maslach Burnout Inventory Human Services Survey for Medical Personnel (MBI-HSS [MP]). Secondary outcomes assessed the practice and demographic factors that may have affected burnout levels. Correlation and regression statistics between MBI-HSS (MP) and practice and demographic variables were performed.

Results: Of 571 invitees, 225 participated in the study, and 173 respondents were included. Burnout subscale scores were not significantly different based on age, race, gender, marital, or caregiver status; however, a sense of belonging positively influenced all subscale scores. Regular mentorship and engaging in a hobby were correlated with significantly lower emotional exhaustion scores (20.2 vs 24.8, $P = 0.028$, and 22.7 vs 28.4, $P = 0.010$). Burnout subscale scores were comparable between practice settings. However, personal accomplishment subscale scores were significantly lower for pharmacists in the inpatient versus outpatient setting (37.1 vs 38.9, $P = 0.036$).

Conclusion: BCPPs are at risk for burnout. Race, gender, and patient volume were not associated with burnout. Factors including mentorship, engaging in hobbies, and a sense of belonging were identified as potential modifiers of burnout in BCPPs.

Keywords: psychiatric pharmacist, burnout, mental health, well-being

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Introduction

Burnout is defined as an occupational phenomenon resulting from chronic workplace stress that is unsuccessfully

managed.¹ It is characterized by a 3-dimensional model consisting of emotional exhaustion, high depersonalization, and a low sense of personal accomplishment from work.² Although not considered a psychiatric disorder, burnout can negatively impact healthcare worker well-being and increase the risk for substance misuse, depression, and suicide.²⁻⁴ Further, burnout among health professionals has been associated with several professional consequences, including absenteeism, medical errors, decreased work satisfaction, and increased turnover.^{2,5} Although methods of measuring burnout vary among health professionals, a recent systematic review based on various tools suggests pharmacist burnout rates as high as 75%.⁵ Additionally, in 2023, 62% of pharmacy professionals reported feeling burnt out in the past month compared with 51% and 52% of physician and nurse colleagues.⁶

Validated rating scales exist to measure the extent and prevalence of burnout among health professionals. The Maslach Burnout Inventory (MBI) is a validated measurement tool most widely used to assess burnout.^{2,7} Variations of the MBI have been developed to measure burnout across different populations, such as the MBI Human Services Survey (MBI-HSS) and the MBI-HSS for Medical Personnel (MBI-HSS [MP]), the latter of which is considered the gold standard for healthcare provider assessment.^{2,8} The MBI-HSS (MP) is a 22-item survey divided into the following 3 subscales for each dimension of burnout: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA). Responses are ranked on a 7-point Likert scale. Higher EE and DP subscale scores and lower PA subscale scores are correlated with a greater degree of burnout. While previous editions provided numerical thresholds to help determine if individuals were experiencing burnout (eg, $EE \geq 27$ and/or $DP \geq 10$), the current manual for the MBI-HSS (MP) recommends evaluating the total and item mean scores for each domain (EE, DP, and PA) and does not provide strict thresholds for categorizing the level of burnout (eg, low, moderate, high).^{5,9}

A previous study of hematology-oncology pharmacists identified that 57.9% of pharmacists scored high for EE and 31.3% for DP, with 32.5% meeting the criteria for a low sense of personal accomplishment.¹⁰ A similar study of critical care pharmacists identified that 44% of pharmacists had elevated EE scores and 35% had elevated DP scores.¹¹ Another study assessing burnout among ambulatory care pharmacists with the MBI-HSS indicated that 69.8% and 46.5% of pharmacists scored high in the EE and DP dimensions, respectively.¹² Despite these high rates of burnout and more than 80% of hospital systems reporting attempts to mitigate pharmacist burnout, only 34% of hospitals reported systematically measuring aspects of pharmacist burnout in a recent survey.¹³

No specific variable has been consistently associated with increased rates of burnout; however, numerous factors have been correlated with higher rates among pharmacists, including female sex, younger age, higher workload (ie, prescriptions, patient volume), and increased administrative duties.^{2,5} Further, some studies suggest that mental healthcare providers may have reduced well-being compared with other healthcare specialties, with more than 50% of providers experiencing burnout.^{14,15} However, to date, no studies have analyzed the prevalence of burnout among Board-Certified Psychiatric Pharmacists (BCPPs). This study aimed to assess rates of burnout and potential influences among BCPPs providing direct patient care across various healthcare settings.

Methods

This was a cross-sectional survey study of BCPP nontrainee members of the American Association of Psychiatric Pharmacists (AAPP). Inclusion criteria included any adult subjects aged 18 to 85 who were pharmacist members of AAPP for at least 5 years and were BCPPs. The survey was available from January 8, 2024, through February 27, 2024. Full details of the survey and methods have been previously published.¹⁶

Burnout was measured using the MBI-HSS (MP) purchased from Mindgarden.⁹ In addition to the MBI-HSS (MP), the survey collected demographic information (age, race/ethnicity, gender identity, marital status), practice setting characteristics (region, prescriptive authority, primary setting, population, location), day-to-day activities of psychiatric pharmacists (direct patient care, dispensing duties, administrative tasks, trainee supervision), and a custom scale question about sense of belonging. Workload information was also collected.

The primary outcome of this study was burnout scores of BCPPs as measured by the MBI-HSS (MP). Secondary outcomes included practice factors that may affect burnout level among BCPPs across inpatient, outpatient, and transition-of-care settings. Descriptive statistics (means, standard deviations, percentages) as well as *t*-tests and χ^2 tests were conducted for linear and nominal data, respectively. Correlation statistics between MBI-HSS (MP) and demographic variables and regression statistics that are predictive factors for burnout based upon workload factors were performed. A full report of demographic and practice-setting data has been previously reported.¹⁶ All analyses were conducted using IBM SPSS, Version 28 (Armonk, NY).

Results

The electronic survey was sent to 573 AAPP BCPP members who have been members for at least 5 years. Two members were removed from the sample either due to

TABLE 1: MBI-HSS (MP) mean sum subscale scores and SDs by demographics^a

Factors (n)	EE Sum Scores (SD)	DP Sum Scores (SD)	PA Sum Scores (SD)
Practice Setting			
Inpatient (93)	23.7 (11.9)	6.33 (5.79)	37.1 (6.17)
Outpatient (80)	23.9 (11.4)	7.09 (5.48)	38.9 (4.74)
P value	0.912	0.383	0.036
Gender			
Female (120)	24.3 (11.9)	6.63 (5.82)	37.6 (5.85)
Male (49)	22.8 (11.1)	7.20 (5.25)	38.7 (5.12)
Other (4)	20.5 (8.06)	1.75 (2.37)	37.8 (3.69)
P value	0.641	0.176	0.483
Race			
Caucasian/White (140)	23.9 (11.6)	6.97 (5.68)	38.1 (5.70)
Non-Caucasian/White (33)	23.3 (12.9)	5.45 (5.43)	37.2 (5.22)
P value	0.791	0.166	0.407
Marital Status			
Married (133)	23.8 (11.8)	6.66 (5.40)	37.9 (5.79)
Not married (36)	24.1 (11.6)	7.31 (6.56)	37.9 (5.22)
P value	0.873	0.546	1.00
Caregiver			
Yes (100)	23.0 (11.5)	6.55 (5.15)	38.2 (5.63)
No (73)	24.7 (11.8)	6.86 (6.30)	37.6 (5.61)
P value	0.343	0.720	0.483
Hobby			
Yes (140)	22.7 (11.1)	6.37 (5.35)	38.2 (5.71)
No (33)	28.4 (12.8)	8.00 (6.70)	36.9 (5.15)
P value	0.010	0.137	0.254
Mentor			
Yes (40)	20.2 (12.6)	6.10 (5.59)	39.7 (4.88)
No (133)	24.8 (11.1)	6.86 (5.67)	37.4 (5.72)
P value	0.028	0.459	0.021
Prescriptive Authority			
Yes (99)	24.3 (12.0)	7.22 (5.80)	38.8 (4.84)
No (74)	23.0 (11.1)	5.96 (5.39)	36.8 (6.36)
P value	0.468	0.146	0.026
Primary Clinical Practice Sector			
Academic (33)	22.8 (11.2)	4.15 (4.20)	38.9 (4.90)
Government (81)	23.4 (11.6)	6.90 (5.55)	38.0 (5.53)
Other ^b (59)	24.7 (11.9)	7.80 (6.11)	37.2 (6.08)
P value	0.706	0.010	0.397

DP = depersonalization; EE = emotional exhaustion; MBI-HSS (MP) = Maslach Burnout Inventory Human Services Survey for Medical Personnel; PA = personal accomplishment; SD = standard deviation.

^aP values represent comparisons between the groups within each MBI domain. Bolded P values indicate statistical significance.

^bOther: Behavioral health clinic, community hospital, correctional facility, home health care, hospice, long-term care, managed care, pharmaceutical industry, primary care clinic, other non-government, acute rehabilitation, private psychiatric hospital, private practice.

email bouncebacks or known factors (retired, practicing outside of the United States). Of 571 invitees, 225 consented to participate in the study (39.4% response rate). Of 225 consented individuals, data from 52 were excluded due to missing data, or they indicated they did not provide direct patient care (inpatient, outpatient, transitions of care). Data from 173 respondents are presented here. Similar proportions of individuals indicated that they practice in inpatient (n = 93, 53.8%) or outpatient (n = 80, 46.2%) settings. Most respondents identified as female, White, and married. There were slightly more than half of the respondents who reported being caregivers of adults or children. The majority reported having a hobby that they engage in weekly. The majority reported that they did not have a

mentor with whom they met regularly. A full report of demographic and practice-setting data has been presented elsewhere.¹⁶

A summary of subscale scores by demographics and practice characteristics can be found in Table 1. Mean burnout subscale scores among BCPPs were 23.8 for EE, 6.68 for DP, and 37.9 for PA. Burnout subscale scores were not significantly different based on age, race, gender, marital status, or caregiver status. Regular mentorship was correlated with significantly lower emotional exhaustion scores (EE: 20.2 vs 24.8, $P = 0.028$) and higher personal accomplishment scores (PA: 39.7 vs 37.4, $P = 0.021$), though no statistical difference was found for depersonalization scores. Burnout

TABLE 2: Comparison of means and SD MBI-HSS (MP) total subscale scores

Occupational Group	EE Sum Scores (SD)	DP Sum Scores (SD)	PA Sum Scores (SD)
Board-Certified Psychiatric Pharmacists (current study)	23.8 (11.6)	6.68 (5.65)	37.9 (5.61)
Physicians and nurses, 1996 ^a	22.2 (9.53)	7.12 (5.22)	36.5 (7.34)
Psychologists, therapists/counselors, mental hospital staff, and psychiatrists, 1996 ^a	16.9 (8.90)	5.72 (4.62)	30.9 (6.37)
Ambulatory care pharmacists, 2022 ¹²	38.3 (11.1)	12.7 (6.80)	Not reported
Critical care pharmacists, 2020 ¹¹	25.3 (13.1)	7.50 (6.70)	36.7 (7.20)

DP = depersonalization; EE = emotional exhaustion; MBI-HSS (MP) = Maslach Burnout Inventory Human Services Survey for Medical Personnel; PA = personal accomplishment; SD = standard deviation.

^aMBI-HSS normative data for occupational subgroups.¹⁷

subscale scores were comparable between inpatient and outpatient practice settings, though PA scores were significantly lower for inpatient pharmacists (37.1 ± 6.17 vs 38.9 ± 4.74 , $P = 0.036$). Those who worked in academic or government institutions reported lower DP scores compared with those in other sectors (4.15 ± 4.20 vs 6.90 ± 5.55 vs 7.80 ± 6.11 , $P = 0.010$). Those with prescriptive authority had higher PA scores compared with those without prescriptive authority (38.8 ± 4.84 vs 36.8 ± 6.36 , $P = 0.026$).

The number of years in practice was associated with lower EE and DP scores and higher PA scores; however, only subscale scores for DP were significant (DP: -0.185 , $P = 0.015$). Depersonalization was significantly different in the primary practice sector. Post-hoc analysis showed that BCPPs in the academic sector had a lower sense of DP compared with those practicing in non-government, non-academic sectors ($P = 0.008$). There were no significant differences in EE, DP, and PA when compared by the population of practice, primary practice location, primary practice region, the total number of beds at the hospital of primary clinical site, number of orders verified per day, or whether they participated in treatment rounds as part of their clinical responsibilities.

Overall, a higher sense of belonging was negatively associated with EE and DP and positively associated with PA (EE: -0.401 , DP: -0.285 , PA: 0.441 , $P < 0.001$). Neither MBI-HSS (MP) scores nor sense of belonging was influenced by the number of inpatient beds (typical vs ideal) or the number of outpatient encounters each BCPP was assigned. When evaluating the sense of belonging and hours spent on specific activities (administrative, precepting, teaching, dispensing, research, etc), all correlations were not significant except for formal consultations (>15 minutes) ($r = 0.165$, $P = 0.030$), which corresponded with a greater sense of belonging.¹⁶ There were no significant correlations found between a sense of belonging and practice setting (inpatient vs outpatient) or number of years in psychiatric practice. The number of providers or support staff working with the BCPP was also not predictive of a sense of belonging.

Discussion

This is the first study to assess and report rates of burnout among practicing BCPPs in the United States. Several findings from this study can be highlighted. Mean scores on the EE and DP subscales for BCPPs are comparable to those reported for physician colleagues and critical care pharmacists.^{11,17} However, compared with normative data for other mental health and medical worker occupational subgroups, BCPPs had higher EE subscale scores (23.8 vs 16.9), regardless of practice setting.¹⁷ This aligns with other well-being reports comparing pharmacy professionals to medicine and nursing colleagues, demonstrating higher rates of pharmacists experiencing distress or struggling than their healthcare counterparts (Table 2). Although EE and DP subscale scores are lower than previously reported in ambulatory care pharmacists, the higher burnout rate in previous studies is likely reflected in the administration time of the survey occurring during the early years of the COVID-19 pandemic.¹² Subscale scores assessing personal accomplishment were higher for BCPPs when compared with other healthcare professions and pharmacy specialties.^{11,12,17}

Despite some data suggesting that female gender is associated with an increased risk of burnout, gender was not found to be correlated with burnout in the current study.⁵ Further, the percentage of respondents identifying as female highlights the ongoing challenge of male and non-binary gender representation in clinical pharmacy specialties. Additionally, not finding a difference between genders in this study may have been due to a lack of power. Similarly, neither race/ethnicity nor marital status was associated with burnout in this study, though it has been documented in the literature that White participants and those who are not married may be at higher risk of burnout.⁵

Inpatient or outpatient practice setting was not found to be a predictor of burnout rates regarding EE or DP subscale scores; however, practicing in the outpatient setting was associated with significantly higher PA subscale scores. Additionally, those who practiced in non-academic and non-government settings appeared to have higher DP

scores. Specific work factors may contribute to this difference, including increased likelihood for weekend staffing among inpatient BCPPs, fewer opportunities for working under prescriptive authority, and reduced ability to work in a hybrid work environment (eg, working both remotely and on-site).¹⁶ Overall, the higher personal accomplishment subscale score among outpatient BCPPs may have been driven by a sense of alignment with typical versus ideal workload in the outpatient setting compared with the inpatient setting.¹⁶ This may also be the case for those who work in academic or government sectors of pharmacy practice. Further, previous studies have found increasing working hours to be associated with higher burnout rates in other pharmacy specialties.^{10,16} In this study, inpatient BCPPs' average work hours totaled 46.5 hours spent on typical activities, while the outpatient pharmacists' average work hours totaled 48.4 hours per week.¹⁶ Despite slightly higher working hours reported by outpatient pharmacists, there were no significant differences among subscale scores. While working hours were not associated with burnout in this sample, future efforts to optimize the workload or panel size of BCPP may still be an important consideration in reducing burnout.

Potential mitigators of burnout were identified. Having a hobby or regularly meeting with a mentor was associated with lower EE subscale scores. Mentorship was also correlated with greater PA subscale scores, which has been previously described as a catalyst for reducing rates of burnout in pharmacists and across other health professions.^{12,18} Further, time away from work, social interactions, and hobbies have been identified as potential protective factors against burnout in other studies of burnout in pharmacists.^{5,19} These are important factors for employees and healthcare institutions to consider, given that they are modifiable and can be encouraged within a workplace setting.

A sense of belonging was associated with lower burnout subscale scores. This relationship has not been studied in other pharmacist populations; however, existing research suggests that feeling a sense of community and belonging plays a role in predicting burnout and job engagement.²⁰ Similarly, a study assessing a sense of belonging in women healthcare professionals identified an inverse relationship between workplace belonging and the likelihood of leaving their occupation.²¹ Creating a sense of community in the workplace may be another avenue on which employers focus burnout mitigation efforts. Top recommendations to improve well-being, contribute toward fulfillment, and decrease burnout also include modeling well-being, being mentored, having an impact, being connected with others, and work-life balance. Examples of key recommendations have included the use of hybrid work environments, focused goals to help employees collaborate and connect more efficiently, and encouraging career mentors.²²

Among respondents, the mean total years in psychiatric pharmacy practice was 12.8 (± 7.31), with a slightly longer duration for inpatient pharmacists. Subscale scores for EE decreased while PA scores increased as BCPPs continued practicing. Studies have reported the expectation mismatches between early career pharmacists and management due to working hours, flexibility, and tasks being areas of concern, which may create an environment of disharmony.²³ To the contrary, He et al found an association between longer length of service and symptoms of burnout and depression among pharmacists, although these correlations were not significant.²⁴ Changes in lifestyle and acclimation to work regularity may improve with longitudinal experience, developed time management skills, and the transition to an autonomous practitioner, leading to less emotional exhaustion and increased sense of accomplishment.

The strengths of the study include the extensive survey tool, the use of the MBI-HSS (MP) to assess burnout, and the response rate of 39.4%. There are several limitations to this study. First, included participants must have been members of AAPP for at least 5 years. This excludes new practicing pharmacists who, in theory, are younger and have less professional experience, both of which have been found to be risk factors associated with burnout.⁵ However, years in practice were inversely correlated with burnout in this study, which supports previous literature that burnout may improve with time. Additionally, only BCPPs practicing in direct patient care were included, and therefore, correlations about burnout in BCPPs who practice in purely academic or administrative settings cannot be concluded. Given that the study only included active AAPP members, as well as those with board certification, this may have impacted bias in the survey response rate. Because active organization members may be more engaged in the profession, participants were likely motivated to complete the survey and less likely to experience burnout. Further, there may be drivers of well-being that were not measured and could have outsized effects, including management styles and coworker personalities. Last, population differences and study timeframe limit direct comparison with other pharmacy specialties and healthcare professions.

Conclusion

BCPPs are at risk for burnout, just like other pharmacy and healthcare professionals. However, when compared with previously published burnout rates for other pharmacy specialties, BCPPs appear to have a lower risk than ambulatory care and critical care colleagues and demonstrated a higher personal accomplishment score, which may be due to a greater sense of professional purpose and community as postulated in a recent commentary.²⁵ The results of this study help support the commitment of AAPP and other national healthcare provider organizations to measure and

intervene to reduce burnout rates among healthcare teams.^{2,26} Although there are positive results for BCPPs, more research is necessary to identify why pharmacists experience higher levels of emotional exhaustion than other professions, even when not practicing in the traditional dispensing roles.

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